Differences in regional development on the territory of the Republic of Serbia

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Abstract. Unbalanced regional development is one of the basic characteristics of the regional development of the Republic of Serbia. The aim of the paper is to highlight the proportions of unbalanced regional development of Serbia by positioning regions in accordance with the values of the indicators included in the survey: population density, (un)employment (the number of employed people per 1,000 inhabitants), activity structure and the amount of average income per employee. The indicators presented in the paper emphasize the role of certain regions in the current regional reality of Serbia. Also, they exemplify regional disparities more comprehensively in terms of the achieved level of socio-economic development and the orientation of the analysed regions to particular sectors of the economy.

Contents:

1. Introductory considerations

The achieved developmental position of the Republic of Serbia, that is the collective consciousness of the population, as well as the time in which we exist as a society, is characterized by the emphasized dominance of urban over rural, with a simultaneous attempt to favour less developed and less populated areas.

The differences in development between regions, at all territorial levels, from local through regional and national to supranational, present one of the crucial problems of a modern society. It is a widespread opinion of the scientific and expert community that the balanced territorial development presents a precondition for the efficient functioning of a state, i.e. the reduction of the differences in regional development represents the correct way to achieve a higher level of overall development (ESDP 1999; **TA 2020**).

In an attempt to achieve this goal, it is constantly considered how to encourage faster development of undeveloped regions in a way that does not interfere with the stable and more rapid development of developed regions, especially those regions which influence a more rapid and more powerful overall development of the whole society and the state. In other words, there is a problem of how to provide conditions to reduce the developmental gap between the prosperous and undeveloped regions, and allow each of them to achieve a rapid pace of development (Živanović, 2008).

The importance of equality in regional development is confirmed by the attempt to balance it. This presents the basis of the existing European principles of regional planning: the renewed strong affirmation of the concept of polycentricity as the preferred developmental pattern intended by both the European Union and the world. Namely, in contemporary conditions, it is considered that the application of a polycentric developmental model would help create the conditions for achieving a more uniform dispersion of the population, and consequently all related activities, which would ultimately result in the reduction of imbalances in the regional development to an acceptable minimum. Avoiding further excessive economic and demographic concentration would allow for the achievement of objectives that

have been recognized by experts as priorities, i.e. economic competitiveness and social equality (Živanović, 2012).

In fact, by mid-20th century, the theory of polarized (concentrated) development began to evolve. It relies on the processes of urban industrialization and stresses the fact that development in the region is taking place through a hub – the poles of growth or the poles of development. Relieving the effects of the process of polarization, which are primarily reflected in the striking differences in regional development, presents the basis of regional policy, not only in the second half of the 20th century, but also at the beginning of the 21st century.

Polarized development can be explained through a number of concepts, which in a similar way but with different terminology explain the occurrence of polarized, i.e. the unbalanced regional development. Regions that have the initial positional advantages in terms of abundance of natural resources, technology, skilled labour, etc. attract lucrative economic activities. This is how manufacturing and financial capital is formed, further encouraging the concentration of workforce and agglomeration of activities. The strengthening of one pole (urban settlement) indirectly causes slower growth in the periphery and causes a delay in its development. Consequently, the gap in terms of income and living standard of the population deepens, too. Numerous authors have based their conception of the polarization process on these principles. Myrdal and Hirshman related in their theories to the circular cumulative causality (Myrdal, 1957), or unbalanced regional development (Hirshman, 1958), as well as Friedmann in the theory on dichotomy of centre and periphery (Friedmann, 1966), who believes that it was primarily industrialization that had caused big differences between developed centres and underdeveloped periphery. Likewise, Perroux in his theory related to the poles of growth argues that economic growth is not achieved uniformly, but at certain points in space the poles of growth or the industrial hot spots dominate. These poles, or the hotspots of development, according to these authors, are linked to big cities that in the era of industrialization had been the main cause for the polarization of space, regardless of whether it is a macro- or meso-regional level (Perroux, 1955, 2005).

2. Unbalanced regional development – main feature of the regional development of Serbia

Unbalanced regional development is also one of the basic characteristics of the regional development of Serbia. Disproportion in development is caused primarily by distinct metropolization and polarization of Serbia. Namely, the lack of adequate regional development policies has created the conditions primarily for Belgrade, with its constant intense concentration of population and consequential agglomeration of activities and capital, to cause the emergence of unbalanced regional development and the formation of irregular national urban system. Also, on the territory of Serbia, the axes of development have been formed along the "striking geographic directrixes – longitudinal and transverse valleys that show characteristics of convergence and permeation in broader regional constellations" (Grčić, 2001: 7-22). The backbone of development of Serbia consists of the primary river axis (the Danube-Sava and the Morava) with the most prominent integration potential and the coherent secondary (intra-regional) axis with weaker functional and integration power (west-Morava, Ibar, Timok, Drina and others) (Miletić, 2005: 81-94).

The entire territory of Serbia has been under the direct and indirect impact of these developmental axes, which resulted in the polarization of the functional-economic and socio-demographic development of Serbia in the relation: developmental axis – undeveloped regions, mostly hilly and mountainous areas (Miletić, 2006).

Namely, until the forties of the 20th century, Serbia was an exclusively agricultural country in terms of its economic structure, and a rural country with the structure of its population (Tošić, Krunić, 2005). According to the Census of 1953, about one-fifth of the total population (22.5%) lived in urban areas, and about two-thirds of the active population (67%) were engaged in agriculture.

Serbia was not affected by intense urbanization until the second half of the twentieth century. The concept of development of Serbia after the Second World War was based on the change of the economic structure of the country and the strengthening of its industrial component. The dominance of the secondary sector over the overall development led to an increasing gap in development levels. In the initial stage of industrial development that was inevitable.

The aim to achieve a GDP growth and the growth of industrial employment as the main strategic directions of development, has resulted in insufficient growth of total employment, increase of regional disparities in development and in social inequality (Miljković-Dimitrijević, 2000).

Demographic trends in the form in which they manifested themselves in Serbia resulted in intense concentration of effects. Concentration of population and jobs cumulatively encouraged the concentration of functions, economic (secondary and tertiary) activities and public activities. This led to increased diversification of the economic structure, and consequently of the capital (production and financial) in rapidly growing, but hierarchically and functionally different urban areas, with a simultaneous slow-down in the development of vast rural areas (Živanović, Gatarić, 2013).

The process of industrialization caused a spontaneous process of urbanization of smaller areas of the country's territory and the process of deagrarization on a large scale. It was the period after the Second World War that was the initial phase in the formation of the gap between urban and rural areas, i.e. the developed and undeveloped areas of Serbia. Polarizing effects of urbanization, spatially manifested in demographic and economic-functional concentration, are most evident in the case of Belgrade. Right after the Second World War, Belgrade was the dominant centre of development, whose urban primacy was 5.7. The percentage of the population of Belgrade that participated in the total population rose from a mere 7% in 1948 to 16.2% in 2011.

A widespread opinion of the scientific and expert community in Serbia (Miljković-Dimitrijević, 2000; Tošić, Krunić, 2005; Živanović, Gatarić, 2013) is that unbalanced regional development presents one of the dominant issues that Serbia must solve in order to continue its development and promote its own affirmation in the immediate and wider surroundings.

3. Proportions of unbalanced regional development of Serbia

The proportions of unbalanced regional development, and more precisely spatial-developmental dif-

ferentiation of Serbia, have been illustrated through the mapping of regions according to the values of the following indicators of polarized development: population density which illustrates demographic polarization of the regions, and the indicators that demonstrate the level of general development, i.e. un/employment (number of employed people per 1,000 inhabitants), the structure of activities and the average income per employee.

The selection of indicators for the analysis of regional development on the territory of Serbia was conditioned primarily by data availability. Namely, the official statistics in Serbia do not monitor many indicators that are taken into account by European and American authors in their analyses of regional development, and are used in European developmental programmes. Therefore, we were constrained to reduce the set of indicators to the ones that were available and that clearly, without subjective assessment, demonstrate the level of development of the studied areas. Also, the selected indicators were used in all strategic developmental documents in the Republic of Serbia.

The research was conducted at a regional level, covering appropriate meso-regional entities, or more precisely, administrative-territorial and statistical units. The differences at this territorial level clearly reflect the proportions of unbalanced regional development of Serbia. Namely, due to the impossibility of defining commonly acceptable criteria for establishing a region as a single entity in Serbia, it is often the administrative territorial division that is taken as the basis for considering the complex issues of regional development planning. The use of administratively-defined regions is justified by certain practical reasons, primarily by the link between developmental policies and information basis for this kind of territorial division. In 1992, the current administrative-territorial division of Serbia was established: 29 regions and the City of Belgrade as a separate entity. Accordingly, the study included 25 regions of Serbia: 7 in Vojvodina and 18 in Central Serbia. The area of Kosovo and Metohija (1) was not included in the research due to the lack of data (Bucher, Ištok, 2015, Bucher, 2012a, Bucher, 2012b).

3.1. Population density

Emphasizing the importance of population density as an indicator of the importance of a region in

its surroundings, we started from the undeniable fact that the concentration of capital in one region stands in causal-consequential relation to its positioning in the wider surroundings. As human capital presents a prerequisite for obtaining other types of capital, i.e. the concentration of population stands in the causal-consequential relation to the concentration of functions, it can be considered the most important form of wealth of a certain territory.

The average population density in Serbia is 82 inhabitants/km². Higher-than-average values of the analysed indicators, apart from the Belgrade region, were recorded in only eight regions: the Južnobačka (South Bačka) region, the Severnobačka (North Bačka) region, the Sremska (Srem) region, the Mačvanska (Mačva) region, the Rasinska (Rasina) region, the Šumadijska (Šumadija) region, the Nišavska (Nišava) region and the Podunavska (Danube region).

The Republic of Serbia as a whole is characterized by spatial and demographic polarization, with nearly a third of the population being concentrated in just one fifth of the territory of Serbia, more precisely in major urban centres. Territorial and demographic asymmetries of Serbia in 2011 are illustrated by the intensity of the concentration of population in the Belgrade area, which is inhabited by 23.1% of the population, then Jušnobačka (South Bačka) with 8.6% and Nišavska (Nišava region) with 5.2% of the population, while the lowest portion of overall population is recorded in the Toplička (Toplica) region and the Pirotska (Pirot) region with approximately 1.3% of the population. The population potentials in the metropolitan area of Belgrade (Vojković, 2007), as well as in macro-regional centres of Novi Sad and Niš, were decisively influenced by migrations of local and regional character. Accordingly, if we exclude the Belgrade area from the analysis as by far the most densely populated area with 514 inhabitants per km², the largest population density is recorded in the Danube region (164 inhabitants/km²), the Južnobačka (South Bačka, 152 inhabitants/km²) and the Nišavska (Nišava) region (136 inhabitants/km²). The least densely populated regions are the Pirotska (Pirot) region and the Zaječarska (Zaječar) region (with 34 inhabitants/km²), the Borska (Bor) region (37 inhabitants/km²) and the Toplička (Toplica) region (41 inhabitants/km²) which are characterized by "population regression" (Fig. 1).
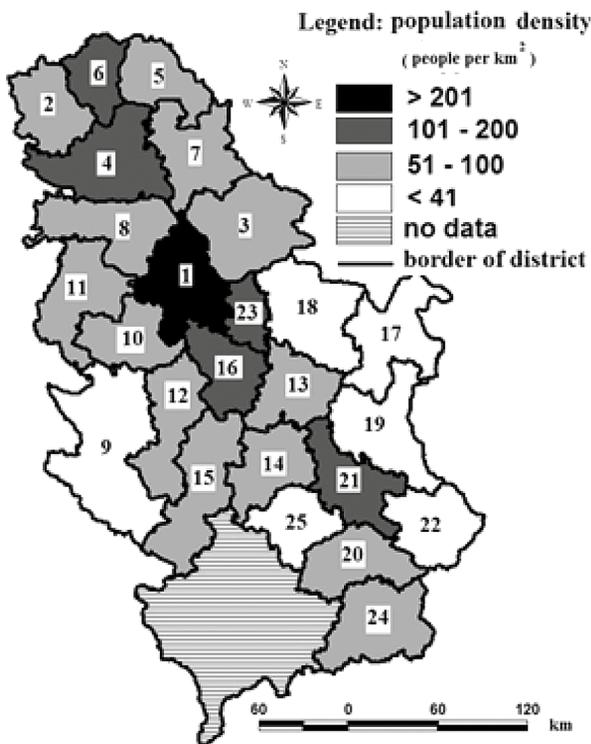
Fig. 1. Population density
Source: Developed by the authors based on data available at The Statistical Office of the Republic of Serbia

However, despite the fact that a higher concentration of population in one area may facilitate and enhance a more rational use of developmental potentials, we consider it necessary to analyse the indicators related to the level of general socio-economic development of the area, primarily the un/employment.

3.2. Employment

With respect to the intense correlation between un/employment and economic development, disparities in the rate of un/employment best illustrate the unbalanced regional development of Serbia as one of the most complex developmental problems.

The analysis of the above-mentioned indicators at the regional level in Serbia, clearly indicates a distinct polarization of space with very noticeable disparities between the developed north and undeveloped south. The highest number of employed people per 1,000 inhabitants and the lowest unemployment rate were recorded in the Belgrade region.

According to the values of the observed indicators, there are areas in Vojvodina (Južnobačka and

Severobačka) that have an above-average value of the analysed indicator (the average value for Serbia is 241). The remaining 22 regions have fewer employed people than the national average. Extremely low values (employee/1,000 inhabitants) were recorded in the regions in the south of Serbia: the Toplička (Toplica) region (151), the Jablanička (Jablanica) region (156) and the Pčinjska (Pčinja) region (160) (Fig. 2). The fact that Serbia has a problem of fictitious employment, as well as the problem of the grey economy that expanded since the 1990s, must not be overlooked.
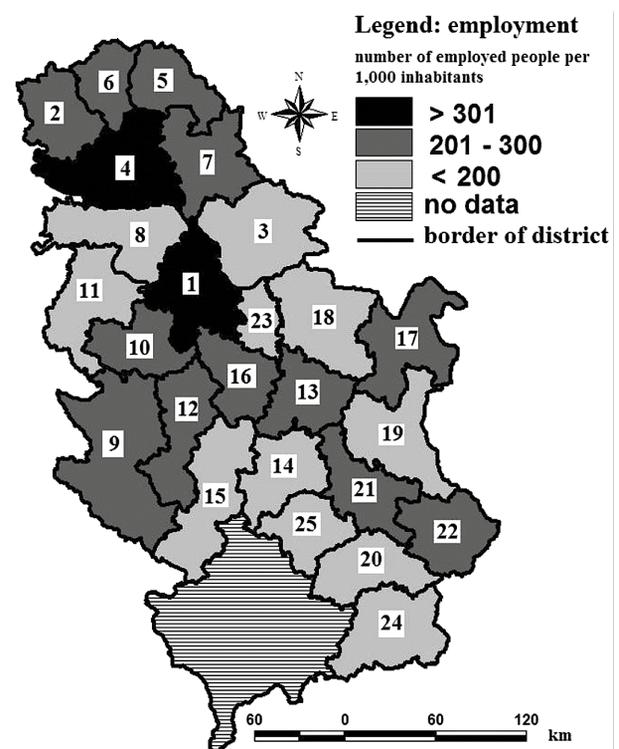

Fig. 2. Employment
Source: Developed by the authors based on data available at The Statistical Office of the Republic of Serbia

In conditions of economic isolation, which resulted in the destructive effects of inflation, altered or deteriorated structure of export and import, reduction in volume of total economic activity, the number of unemployed people, both in developed and in undeveloped regions has increased. Regions with the highest number of the unemployed are industrially "devastated" areas: the Jablanička (Jablanica) region (172), the Toplička (Toplica) region (168) and the Raška (164) region.

The lowest number of unemployed people was recorded in the Braničevska (Braničevo) region (53) and the Belgrade region (59). A more favourable value than the national average (102) was recorded in another 7 regions: the Severobanatska (North Banat) region, the Severobačka (North Bačka) region, the Sremska (Srem) region, the Kolubarska (Kolubara) region, the Moravska (Morava) region, the Dunavska (Danube) region and the Borska (Bor) region (Fig. 3).
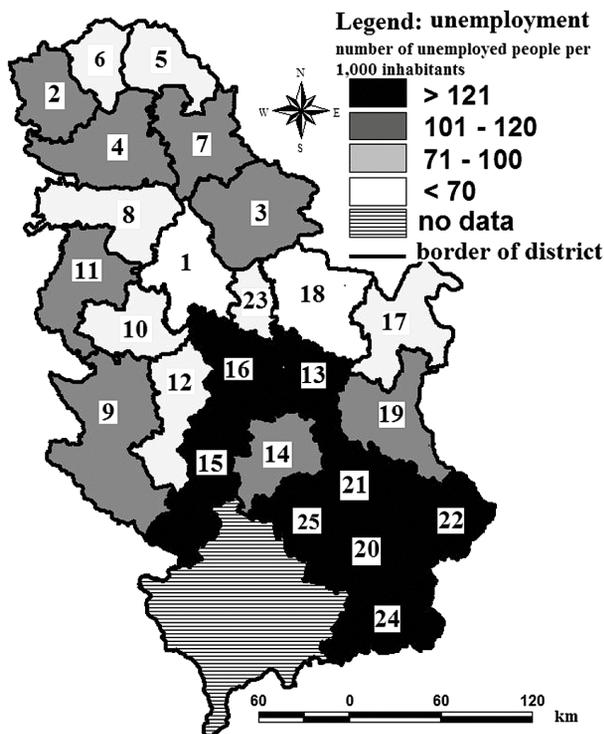

Fig. 3.   Unemployment

Source: Developed by the authors based on data available at The Statistical Office of the Republic of Serbia

3.3. Activity structure

"The most prominent feature of economic systems in modern societies is the existence of division of labour" (Tošić, 2012). Activity structure and the model of economic sectors based on it, are often used to define the character, quality and level of economic and social development. It starts from the hypothesis that the diversification of activity structure expresses the general socio-economic development.

Activity structure of the population of each area can truly be considered a mirror of its development position. In the conditions of general underdevelop-

ment that characterizes the largest part of the heartland of Serbia, it is evident that a high number of the analysed regions demonstrate that a more developed activity structure exists only in urban settlements. These developed enclaves, or more precisely development centres, determine the processes that take place in the immediate surroundings.

The analysis of the value of the indicator related to the share of working population and its occupation by sectors shows that in as many as 19 regions of Serbia the tertiary-quaternary sector has a dominant share. The average percentage of employees in this sector is 53%. The most prominent dominance of the tertiary-quaternary sector was recorded in the Belgrade region (83%), the Južnobačka (South Bačka) region (71%) and the Nišavska (Nišava) region (71%), where the largest developmental centres are positioned: Belgrade, Novi Sad and Niš. The Kolubarska (Kolubara) region is the only one which is not dominated by tertiary-quaternary but by the primary sector (40%). The primary sector is prevalent in another 5 regions, apart from the Kolubarska (Kolubara) region: the Zlatiborska (Zlatibor) region, the Mačvanska (Mačva) region, the Braničevska (Braničevo) region, the Zaječarska (Zaječar) region and the Jablanička (Jablanica) region.

However, what results from the analysis of the activity structure of the active population performing an occupation, as an important indicator of development, must be taken with caution in our local conditions for the following reasons: (a) firstly, due to the collapse of the economy that occurred in Serbia at the end of the last century, which is primarily reflected in the decay of large industrial enterprises, the category of "fictitious employees" emerges. Because of a variety of frauds, these people are not considered unemployed while in reality they do not have any income. Thus, the number of employees in the secondary sector in official statistics gives a slightly distorted picture of the reality. (b) Secondly, although it is considered that the structure of the industry in which the tertiary-quaternary sector dominates presents an indicator for monitoring developmental processes in developed countries, where there has been a sharp increase in the share of tertiary and quaternary activities due to the technological achievements of the information revolution, which marked the end of the domination of the industrial mass production, it must not be overlooked when it comes to the domestic

context. In Serbia, the main cause of the increase in employment in the tertiary-quaternary sector is the stagnation of the secondary sector of the economy. Besides, its quality of service is far below the quality that characterizes highly developed regions. Therefore, the so-called process of quasi-tertiarization presents a certain particularity of Serbia.

3.4. Income per employee

The disintegration of the socialist system, both in the East European countries, the Soviet Union and on the territory of Serbia, caused powerful disruptions of the economic structure of the country, its social equilibrium, its relationship with the surroundings, etc.

The final decade of the previous century was a difficult period for Serbia as a whole. The wars fought on the territories of former SFRY, refugee waves that swept through Serbia, a deep socio-economic crisis which the Serbian economy plunged into, political instability, etc. adversely affected both the developed, and all the more intensively the undeveloped regions of the Republic.

Table 1. Basic indicators of development of Serbia's regions in 2011

No.	A	B	C	D	E	F	G	H
1.	Beogradska region (City of Belgrade)	514	350	59	1.82	15.14	83.04	46,986
2.	Zapadnobačka region	79	202	112	18.34	23.02	58.64	33,448
3.	Južnobanatska region	70	194	114	15.42	23.10	61.48	39,588
4.	Južnobačka region	152	309	113	8.17	20.53	71.30	40,664
5.	Severnobanatska region	65	213	98	20.62	29.60	49.77	33,062
6.	Severnobačka region	106	253	87	13.98	23.45	62.58	33,918
7	Srednjobanatska region	58	201	103	18.59	27.15	54.26	34,717
8.	Sremska region	92	182	88	16.63	24.5	58.86	32,029
9.	Zlatiborska region	47	202	112	26.71	23.48	49.81	32,399
10.	Kolubarska region	72	222	77	40.06	21.25	38.69	32,929
11.	Mačvanska region	93	173	114	31.55	17.70	50.74	32,608
12.	Moravička region	70	216	93	23.12	28.75	48.13	32,417
13.	Pomoravska region	81	220	134	18.82	25.09	56.09	31,185
14.	Rasinska region	90	180	114	26.35	26.41	47.25	30,083
15.	Raška region	77	187	164	13.80	21.05	65.15	30,774
16.	Šumadijska region	121	210	122	14.48	26.91	58.61	34,411
17.	Borska region	37	211	98	20.13	28.90	50.97	38,992
18.	Braničevska region	48	195	53	26.84	19.58	53.58	37,241
19.	Zaječarska region	34	185	119	35.15	18.92	45.93	30,595
20.	Jablanička region	80	156	172	32.72	15.96	51.32	28,314
21.	Nišavska region	136	202	140	7.78	21.14	71.07	32,310
22.	Pirotska region	34	220	141	10.01	35.11	54.88	32,280
23.	Podunavska region	164	197	74	14.95	28.32	56.73	36,766
24.	Pčinjska region	64	160	121	13.65	30.85	55.50	29,914
25.	Toplička region	41	151	168	12.94	25.80	61.26	26,999

Explanation: A – region; B – population density km²; C – number of employees per 1,000 inhabitants; D – number of unemployed per 1,000 inhabitants; E – participation of the employed in primary sector; F – participation of the employed in secondary sector; G – participation of the employed in tertiary-quaternary sector; H – average income per employee in RSD

Source: Municipalities and regions in the Republic of Serbia, 2012; Population Census 2011, volume 15

*Note: The ordinal number of a region in Table 1 corresponds to the number of the region on maps 1-4

The imposed economic blockade and international isolation contributed to the increase in the number of unemployed people, the reduction of salaries and rapid impoverishment of the population, thus causing the emergence and strengthening of the grey economy. These events, socio-economic and political disturbances significantly damaged the Serbian economy, initiating major structural changes. Deprived of larger investments, due to the absence of internal capital and especially because of the unavailability of foreign financial sources, the Serbian economy was exhausted, structurally disoriented and weakened.

Reduced economic activity was simultaneously the consequence of the weakening of the economy and the cause of the closure or minimal use of larger industrial capacities, that were export-oriented and import-dependent. It resulted in a radical reduction of GDP and national income i.e. in the reduction of salaries. The value of the indicator related to income per employee as a relevant indicator of development and economic strength of the observed regions, will shed light on the differences in development of certain parts of the Republic.

By analysing the average salary per employee it can be concluded that the highest income (more than the national average – 37,976 RSD) per employee is recorded in only four regions: the Belgrade region, the Južnobanatska (South Banat) region, the Južnobačka (South Bačka) region and the Borska (Bor) region, whereas the lowest average income was recorded in the Pčinjska (Pčinja) and the Toplička (Toplica) regions (Fig. 4).
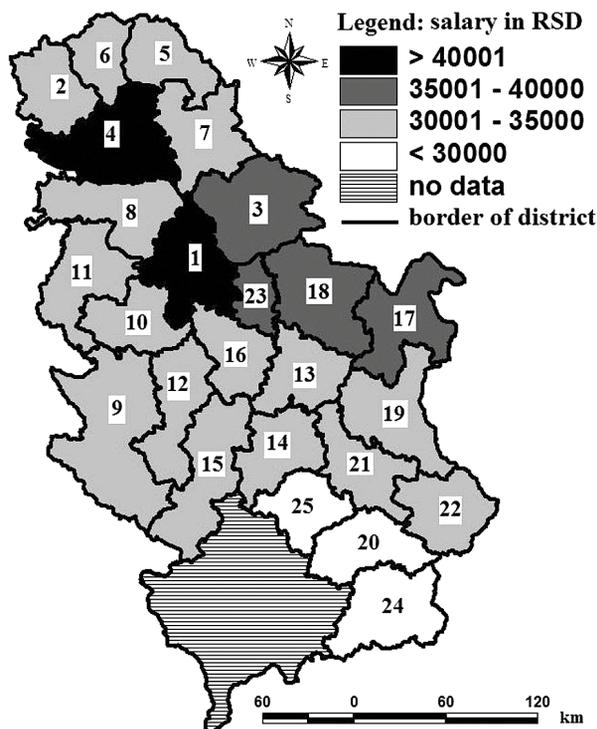

Fig. 4. Average income

Source: Developed by the authors based on data available at
The Statistical Office of the Republic of Serbia

Based on the synthetic evaluation of the results obtained by analysing the observed indicators, a typology of regions in Serbia has been produced: (a) in highly developed areas, i.e. in the Belgrade region and the Južnobačka (South Bačka) region, the values of all indicators were more favourable than the average for the Republic of Serbia as a whole; (b) other areas on the territory of Vojvodina and ten regions in Central Serbia (Fig. 5) were classified as medium-developed regions with respect to the values of the analysed indicators that range from 85% to 100% of the national average; (c) in the underdeveloped areas of south Serbia, values of the monitored indicators were lower than 85%

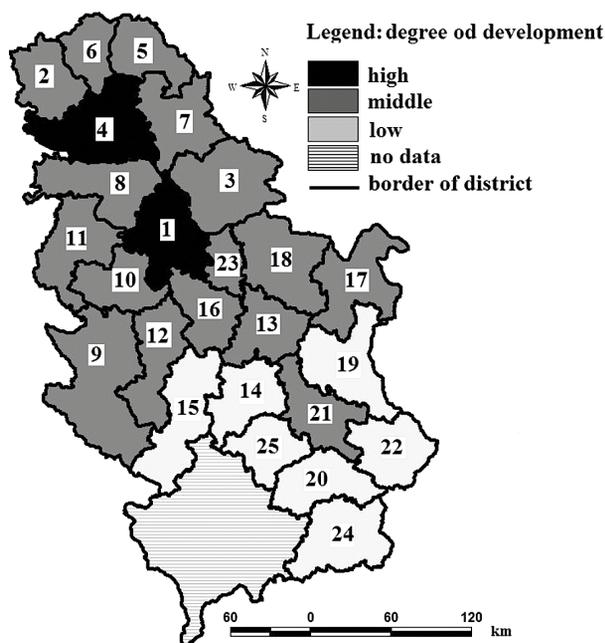of the average value on the national territory as a whole.

Fig. 5.   Degree of development

Source: Developed by the authors based on data available at The Statistical Office of the Republic of Serbia

4.   Conclusion

The results of the analysis of selected characteristics illustrate a striking unevenness of regional development in Serbia. The highest level of development is characteristic for the regions dominated by the largest developmental centres of Serbia: Belgrade and Novi Sad. Going from north to south, the level of development significantly decreases.

Since the differences in value of certain parameters range from 1:2 up to as high as 1:20, the question of a hypothetical nature is how to formulate a strategy of a more balanced regional development of Serbia, which will provide both the conditions for the reduction and elimination of regional disparities and the manifested conditions for faster overall and regional development.

Namely, without a serious developmental policy, which would be supported by coordinated funding and adequate instruments of implementation, it is

not possible to initiate a processes that would result in minimising the differences in regional development, or more precisely that would ultimately allow for the creation of conditions for tolerably unbalanced regional development of Serbia.

Note

(1)   The population census on Kosovo and Metohija has not been conducted since 1981.
(2)   Theoretical foundations of the centre – periphery dichotomy were proposed by Friedman J. 1966, See: Vresk, 2002.

Acknowledgements

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